

DVIGANTSEV, V. N.

Siberia, Eastern - Grasses

Progressive practice in meadow and pasture improvement in Eastern Siberia. Dost.  
sel'khoz. No. 2, 1953.

Monthly List of Russian Accessions, Library of Congress  
June 1959. UNCL.

ANTONOV, S.M.; DVIUBSKIY, G.G.

New developer for positive films. Tekh.kino i telev. 4 no.4:45-52  
Ap '60. (MIRA 13:9)

1. Nauchno-issledovatel'skiy kinofotoinstitut "Mosfil'm."  
(Photography--Developing and developers)

DVIGUN, V. M.

112-1-723

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957, Nr 1, p. 120 (USSR)

AUTHORS: Dvignun, V. M., Siromakha, B. I.

TITLE: Pressing of Commutators of D-C Machinery with Plastic (Opressovka kollektorov mashin postoyannogo toka plastmassoy)

PERIODICAL: Sbornik rats. predlozheniy. M-vo elektrotekhn. prom-sti SSSR, 1955, Nr 56, pp. 4-6

ABSTRACT: A fixed cast mold is applied for the pressing of commutators with plastic; it consists of three basic parts: upper, middle and lower. The upper part consists of a punch fastened on a plate by a holder, the middle part consists of a die placed on a plate, and the lower part of a yoke and of a molding inset. Commutator plates are first molded with the micanite insulating gaskets into a ring. The ring with the plates is placed into the yoke of the casting mold. The molding operation consists of pressing the compacting powder with the punch through the gap between the ring and the die into the cavity created by the die, the molding inset and the commutator plates. The compacting powder is first pressed into briquets. The pressing is done by preheating (up to 160°) with heaters placed in the pressing tool. The pressing out of the com-

Card 1/2

Pressing of Commutators of D-C Machinery with Plastic (Cont.)

112-1-723

Card 2/2      mutator from the ring is done on a special device. The use of the  
pressing tool makes possible the reduction of labor and the improve-  
ment of the quality of the plastic covering of the commutator plates.  
P.A.Ya.

SOV/123-59-16-68064

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 16, p 570 (USSR)

AUTHORS: Dvigun, V.M., Siromakha, B.I.

TITLE: Pressmolds for the Molding of Apertures in Pieces of Plastic Material

PERIODICAL: Byul. tekhn.-ekon. inform. Sovnarkhoz Khar'kovsk. ekon. adm. r-na, 1958, Nr 3, 14 - 17

ABSTRACT: At the Khar'kov Electro-Mechanical Plant new pressmolds were manufactured, in which the lateral punches are not any more pressed in and taken out by hand but by special hydraulic ejectors which can be easily detached and can be used on other pressmolds of the same type. The new pressmold is operating in the following way: When the two halves of the die are in a closed position the ejector is in the lower position, the lateral punches are in the outer position. The punch is lifted by the main plunger of the press. Cakes which have been preliminarily warmed up on an HF-installation are put into the receiving part of the die. When the upper plunger is lowered the lateral punches are fixed by pillars, which are fastened on the upper part of the pressmolds. After each pressing

Card 1/2

30V/123-59-16-68064

Pressmolds for the Molding of Apertures in Pieces of Plastic Material

operation there is a delay of 3 - 4 minutes. At the end of the lifting stroke of the punch the automatic hydraulic ejectors are put into operation and the lateral punches are withdrawn; upon this the lower ejector is switched on and the die is lifted and opened. The described molds increase the operating efficiency, permit the pressing of long pieces and cavities at any angle and also render cheaper the cost price of the molds.

M.L.P.

Card 2/2

DVIHALLY, Zsuzsa; PONYI, Jeno

Hydrobiological conditions of the Vorosvar Valley. Hidro-  
logiai kozlony 36 no.3:211-217 Ja'56.

DVIHALLY, ZSUZSA

T.DVIHALLY, Zsuzsa

Seasonal changes in the chemical composition of sodic lake waters.  
Hidrologiai kozlony 40 no.4:316-323 Ag '60.

1. Magyar Dunakutató Allomás, Alsógöd.



HUNGARY/Cosmochemistry. Geochemistry. Hydrochemistry.

D

Abs Jour: Ref Zhur-Khim., No 13, 1958, 42962.

Author : Dvihally Zsuzsa, Ponyi Jeno.

Inst :

Title : Chemical Composition and Crustacean Fauna of Salt-Marsh  
Waters in the Vicinity of the Village of Kistelek.

Orig Pub: Hidrol. kozlony, 1957, 37, No 3, 257-263.

Abstract: Study of the water of salt marshes in one of the districts of the Great Hungarian Plain. In chemical composition 3 groups are differentiated: 1) sodium-hydrocarbonates; containing (mg/liter):  $\text{Na}^+ + \text{K}^+$  7847.8-1082.4;  $\text{Mg}^{2+}$  0-156.6;  $\text{Ca}^{2+}$  0-15.0;  $\text{CO}_3^{2-}$  2179-2092.6;  $\text{HCO}_3^-$  2047.5-14001.8;  $\text{Cl}^-$  189.9-1369.5;  $\text{SO}_4^{2-}$  102.9-184.4; mineralization (M) 3898.9-25468.6; pH 9.55-10.58;

Card : 1/2

HUNGARY/Cosmochemistry. Geochemistry. Hydrochemistry.

D

Abs Jour: Ref Zhur-Khim., No 13, 1958, 42962.

2) magnesium-sodium hydrocarbonated:  $\text{Na}^+ + \text{K}^+$   
 160.9-597.1;  $\text{Ca}^{2+}$  6.6-37.4;  $\text{Mg}^{2+}$  61.6 - 139.6;  $\text{CO}_3^{2-}$  -  
 none;  $\text{HCO}_3^-$  5.5-294.7;  $\text{SO}_4^{2-}$  73.1-399.1; M 1120.6-2850.3;  
 pH 7.85-8.44; 3) water of some flooded districts, of  
 low M 689.0-2661.9;  $\text{Na}^+ + \text{K}^+$  78.5-350.4;  $\text{Ca}^{2+}$  9.3-  
 117.4;  $\text{Mg}^{2+}$  33.8-264.6;  $\text{HCO}_3^-$  511.3-1675.9;  $\text{Cl}^-$  2.1-  
 32.9;  $\text{SO}_4^{2-}$  12.9-198.5; pH 7.48-8.96.

Card : 2/2

10

T.DVIHALLY, Zsuzsa

Optical investigations in the Alsogod section of the Vac  
Danube branch. Hidrologiai kozlony 39 no.5:357-364 0'59.

1. Magyar Dunakutato Allomas, Alsogod.

DVIHALLY, Zsuzsa, T.

Calculation of underwater distribution of radiant energy as a problem of production biology. Acta biol Hung 11 no.2:77-89 '60. (ERAI 10:2)

1. Hungarian Danube Research Station, Alsogod (Head: E.Dudich)  
(WATER) (BIOLOGY)

T. DVIHALLY, Zsuzsa

Data on the evaluation of chemical conditions of the Danube water.  
Hidrologiai kozlony 43 no.3:268-271 Je '63.

VAGAS, Istvan; T.DVIHALLY, Zsuzsa

Thoughts and proposals concerning the evaluation of chemical conditions of the Danube water. Hidrologiai kozlony 43 no.6: 526-527 D '63.

1. Vizgazdalkodasi Tudomanyos Kutatointezet, Budapest; "Hidrologiai Kozlony" szerkeszto bizottsagi tagja es rovatvezetoje (for Vagas).

IAZERKO, G.A.; DVINENKO, I.A.; ZARETSKIY, M.V.

Kinetics of the formation of double ammoniates. Zhur. fiz.  
khim. 39 no.9:2169-2174 S '65. (MIRA 18:10)

L. Belarusskiy gosudarstvennyy universitet imeni V.I. Lenina.

DVINIKOV, L. I.; BORISOVA, Z. Yu.

"Investigation of vitreous semiconductor alloys."

report submitted for 4th All-Union Conf on Structure of Glass, Leningrad,  
16-21 Mar 64.



DVININ, G.M.; MISHANSKIY, I.M.; DUBKOV, A.A.; MALAKHOVSKIY, G.F.;  
DRYAGIN, P.A.; BUCHEL'NIKOV, D.V.

Working placer layers in a transverse ravine with the aid of  
explosives. Prom.energ. 15 no.2:20 F '60.  
(MIRA 13:5)

(Mining engineering)

DVININ I. V.

36117 Materialy po ispol'zovaniyu i khraneniyu ugley Gusinoozerskogo mestorozhdeniya Buryat-Mongol'skoy ASSR. Zapiski Buryat-Mongol. nauch.-issled. in-ta kul'tury i ekonomiki, VIII, 1948, S. 25-44.

SO: Letopis' Zhrunal' nykh Statey, No. 49, 1949

DVININ, P. A.

21932 DVININ, P. A. Massovyye skopleniya molod'i lososovykh u beregov Sakhalina. Ryb.  
khoz-vo, 1949, No. 7, s. 39-41

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949.

DVTN, P.A.

29178

Migratsii gorbush. u beregov Sakhalina. Ryb. Khoz-vo, 1949, No.9, s. 35-37.

30: Letosi' Zhurnal'nykh Statey, Vol. 39, Moskov, 1949

DVININ, P. A.

37278. Chernyy kizhuch oneorhynchus kisutch (albaum) morpha relictus nova.  
Doklady akad. Nauk sssr, novaya seriya, T. lxix 5, 1949, s. 695-97

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

DVININ, P. A.

Agriculture

Sakhalin salmon. Vladivostok, Izd. Tikhookeanskogo nauchno-issledovatel'skogo instituta rybnogo khoziaistva i okeanografii, 1952. . . .

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

DVININ, P. A.; PAVLOV, I. S.

Fishes - Sakhalin

Fish reserves of the northern part of the eastern shore of Southern Sakhalin,  
Ryb. khoz. 29, No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

DVININ, P.A.

~~Distinctive features in the biology of the Pacific salmon *Oncorhynchus*~~  
~~masu Brevoort of Sakhalin. Vop. ikht. no. 7:33-35 '56.~~

(MLRA 10:3)

1. Tikhookeanskiy nauchno-issledovatel'skiy institut rybnogo khozyaystva  
i okeanografii.

(Sakhalin--Salmon)



DVININ, P.A.

Some specific features of the young of humpbacked salmon (*Oncorhynchus gorbuscha* Walbaum) at the time of their descent from the rivers of Sakhalin to the sea. Zool.zhur. 38 no.8:1268-1269.  
Ag '59. (MIRA 12:11)

1. Sakhalin Branch of the Pacific Research Institute of Fishery Management and Oceanography, Sakhalin Region, Tshekhov District, Post Office of Antonovo.  
(Sakhalin--Salmon)

DVININ, V.; DRALOV, G., deviator

Radio direction finding trainer. Mor. flot 23 no.5:15-16 '63.  
(MIRA 16:9)

1. Starshiy inzh. po radionavigatsionnym priboram Azovskogo  
upravleniya (for Dvinin).  
(Radio direction finders) (Nautical training schools)

DVININ, Yevgeniy Aleksandrovich; BOBROV, Yu.A., red.; YEVSEYEV, P.I.,  
tekhn.red.

[The region we live in] Krai, v kotorom my zhivem. Murmansk.  
Murmanskoe knizhnoe izd-vo, 1959. 279 p. (MIRA 13:6)  
(Murmansk Province--Economic conditions)  
(Murmansk Province--History)

DVININA, I.

~~Siberian miners' city. Mast. ugl. 7 no.8:24a-24b Ag '58.~~

(MIRA 11:9)

(Cheremkhovo--Description)

Dvinov, M. S.

M/S  
105.22  
.D9

Osnovnyye Pravovyye Voprosy Deya-tel'nosti Gosudarstvennykh Torgovykh  
Organizatsiy  
(Basic Legal Questions on the Activities of State Commercial Organizations,by)

M. S. Dvinov (1 Dr.)

Moskva, Gostorgizdat, 1955

239 P. Tables.

Bibliographical Footnotes.

DVINOV, S.A., inzh.

Vibration insulating effect of the compensators of gas exhaust  
pipes of internal combustion engines. Trudy L'VT no. 3932-44  
'64.

(RIP 18:10)

DVINSKAYA, L. M.:

DVINSKAYA, L. M.: "The effect of the season of the year and the amount of work on changes in the blood composition of horses of various breeds." Moscow Order of Lenin Agricultural Academy imeni K. A. Timiryazev. Moscow, 1956 (Dissertation for the Degree of Candidate in Agricultural Science)

So: Knizhnaya Letopis', No. 18, 1956

L 9777-66 EWT(d)/EWT(1)/EEC(k)-2/FCC/EWP(1)/EWA(h) IJP(c) BB/GG/GW  
ACC NR: AP5025479 SOURCE CODE: UR/0203/65/005/005/0884/0891

AUTHOR: Galkin, A. I.; Dvinskikh, N. I. 44 64  
91 B

ORG: Institute of Earth Magnetism, Ionosphere, and Radiowave Propagation SO AN SSSR 44  
(Institute zemnogo magnetizma, ionosfery y rasprostraneniya radiovoln SO AN SSSR)

TITLE: Electronic computer data processing of the vertical panoramic zoning of the ionosphere 44, 44

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 5, 1965, 884-891

TOPIC TAGS: computer technology, data processing, algorithm, ionosphere, computer calculation

ABSTRACT: The existing methods of even a preliminary data-processing of the vertical panoramic zoning of the ionosphere and especially the programming for computing the N-h profiles cannot be handled judiciously by electronic computers. An algorithm was suggested, assigning the entire task of the preliminary data-processing to the computer. The algorithm yields a programming by virtue of which a reliable high-frequency characteristic is obtained from the registered

Card 1/2

UDC: 550.388.2  
2



L 9777-66

ACC NR: AP5025479

preliminary data. The time coordinates of all signals, irrespective of whether or not the signals carry useful information, are fed into the computer. The computer performs the selection of useful signals based on the analysis of the time intervals between separately registered impulses while some a priori information concerning the structure of the layers of the ionosphere is utilized. The sifting of noise and the construction of the ramification of the high-frequency characteristic are performed simultaneously. At the conclusion of the program all the smooth sections of the high-frequency characteristic are singled out, yielding the standard characteristic of the ionosphere (the altitudes of the layers and their critical frequencies). The smooth sections of the high-frequency characteristic are subsequently used for the construction of H-h profiles. The description of the program is given in operator form. Orig. art. has: 4 figures.

SUB CODE: 09,04/SUBM DATE: 11Aug64/

NR REF SOV: 004/ OTHER: 000

*Beh*  
Card 2/2

DVINSKIKH, V. A.

Power transformer cores. Radio no.8:51 Ag '53.

(MLRA 6:8)

(Radio--Transformers)

110-7-8/30

AUTHOR: Dvinskikh V.A. (Engineer).

TITLE: Single-phase shell-type transformers with specially wide cores. (Odnofaznye transformatory s ushirennymi serdech-nikami bronevogo tipa).

PERIODICAL: "Vestnik Elektropromyshlennosti" (Journal of the Electrical Industry, Vol.28, No.7, 1957, pp.27-30 (USSR)).

ABSTRACT: Single phase shell-type transformers are widely used. Economy of materials, particularly non-ferrous, can be achieved by rational design of the transformers. In particular, transformers of the shell-type in which the ratio of the width of the centre core to double the width of the outside one is less than unity serve this purpose. Cores of this kind with specially wide yokes are used in low frequency transformers and in power transformers of low output. The use of cores with wide yokes results in a cost reduction of 6 to 8%. The core section is reduced under the winding and increased elsewhere. The object of this article is to provide material for the redesign of existing transformers as transformers with wide cores, maintaining the electrical properties, and with the greatest possible economy. A formula is first derived (see appendix 1) for transformers of a power of some hundreds VA assuming

Card  
1/2

The Determination of the Average Complex Transfer Function of  
Non-Linear Quadripoles

SOV/141-58-4-26/26 06510

quadripole and the linear quadripole in such a manner that the modulus of the transfer function of the latter is greater than the reciprocal of the modulus of the complex transfer function of the non-linear quadripole. When the above conditions are fulfilled, the system will oscillate. The development of the oscillations is determined by the dependence of the average complex transfer function on the amplitude of the oscillations. The system will become stable when the following relationship is fulfilled:

$$\dot{K}_{gr}(A_1, \omega_0) \dot{\beta}(\omega) = 1 \quad (1)$$

where  $\dot{K}_{gr}$  denotes the average complex transfer function of the non-linear quadripole (when the oscillation amplitude is  $A_1$  and the frequency  $\omega_0$ ) and  $\dot{\beta}$  is the complex transfer function of the auxiliary linear quadripole. Since  $\dot{\beta}$  is known, Eq (1) can be used to

Card 2/3

AUTHOR: Dvinskikh, V.A. SOV/120-59-2-35/50  
TITLE: A Method of Measuring Small Non-linearities in Four-poles  
(Metod izmereniya malykh nelineynostey chetyrekhpolyus-  
nikov)  
PERIODICAL: Priory i tekhnika eksperimenta, 1959, Nr 2,  
p 120, (USSR)  
ABSTRACT: A method using a sawtooth voltage and a differentiator  
has already been described in Ref 1. A non-linearity of  
0.1% can be readily detected. It is proposed that by  
closing a loop round the four-pole using an auxiliary  
four-pole of impeccable linearity and variable transfer  
function the dependence of the response of the original  
four-pole on input level can be determined. It is stated  
that using a two-mesh RC auxiliary and a MSR-47 resis-  
tance box non-linearities of 0.01% have been revealed at  
1000 c/s.

Card 1/2

A Method of Measuring Small Non-linearities in Four-poles

SOV/120-59-2-35/50

There is 1 English reference.

ASSOCIATION: Saratovskiy gosudarstvennyy universitet  
(Saratov State University)

SUBMITTED: March 21, 1958

Card 2/2

9 (2)

06355  
SOV/142-2-4-8/26

AUTHOR: Dvinskikh, V.A.

TITLE: An Indirect Method of Measuring the Modulus and the Phase of the Mean Complex Amplification Factor of Quasilinear Amplifiers

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1959, Vol 2, Nr 4, pp 437-445 (USSR)

ABSTRACT: The author describes an indirect method of measuring the modulus and the phase of the mean complex amplification factor of quasilinear amplifiers, resonance amplifiers, band amplifiers, wideband amplifiers. This method was published by the author at the Second All-Union Conference on Radio Electronics, held by the MVO SSSR in Saratov in September 1957. For measuring the mean complex amplification factor, a feedback four-pole is used which produces self-oscillations. The wanted modulus and the phase are determined for the steady-state oscillations according to the known parameters of the four-pole. The author establishes the

Card 1/3

06355

SOV/142-2-4-8/26 ..

An Indirect Method of Measuring the Modulus and the Phase of the  
Mean Complex Amplification Factor of Quasilinear Amplifiers

connection between the amplifier parameters and the additional four-pole, describes the regions of stable oscillations and estimates the accuracy of the indirect measuring method. The accuracy estimation of the indirect measuring method can be performed only within the frame of an analysis, accounting for the presence and influence of the higher harmonics. This was explained by the author at the All-Union Scientific Session of NTOR i E imeni A.S. Popov in Moscow in 1958. The author compares measuring results obtained by the direct and indirect methods. The measuring results of the modulus and the phase of the amplification factor coincide practically with small oscillation amplitudes. The phase values will differ from the actual values by an essential magnitude only in case of considerable amplitudes. The indirect method of measuring the modulus and the phase of the amplifier amplification provides a simplification of the measuring circuits. The circuits

Card 2/3



06355

SOV/142-2-4-8/26

An Indirect Method of Measuring the Modulus and the Phase of the  
Mean Complex Amplification Factor of Quasilinear Amplifiers

for which the indirect method has been used, comprise a very wide range of amplifiers. The author expresses his gratitude to his supervisor V.I. Kalinin for his interest in this work. The publication of this article was recommended by the Department of Radio Physics of the Saratovskiy gosudarstvennyy universitet imeni N.G. Chernyshevskogo (Saratov State University imeni N.G. Chernyshevskiy). There are 5 circuit diagrams, 2 sets of graphs and 13 references, 12 of which are Soviet, and 1 American.

SUBMITTED: January 12, 1959 (April 10, 1958)

Card 3/3

AUTHOR: Dvinskikh, V.A.

SOV/109- - 4-3-27/38

TITLE: Evaluation of the Accuracy of the Indirect Method of Phase Measurement (Otsenka tochnosti kosvennogo metoda izmereniya fazy)

PERIODICAL: Radiotekhnika i Elektronika, Vol 4, Nr 3, 1959, pp 534-535 (USSR)

ABSTRACT: A number of authors (Refs 1-5) proposed a method of measuring the phase shifts in linear quadripoles, in which the investigated device is connected into the circuit of an oscillator and the phase shift is determined indirectly by measuring the change in the frequency of the oscillator. The problem of the errors arising in this type of measurement is of some practical interest. These can be investigated by considering an oscillator with an LC tuned circuit in the anode and an inductive coupling between the anode and the grid. It is shown that, if the grid current and the anode resistance are neglected, the operation of the system can be described by the following non-linear differential equation:

Card 1/3

SOV/109- -4-3-27/38

Evaluation of the Accuracy of the Indirect Method of Phase Measurement

$$\ddot{v} + \omega_0^2 v = \left[ \omega_0^2 M \frac{df(v)}{dv} - \omega_0 \delta \right] v, \quad (1)$$

where  $v$  is the voltage at the grid,  $\omega_0$  is the resonance frequency of the circuit,  $\delta$  is the damping coefficient of the circuit,  $M$  is the mutual inductance and  $df(v)/dv$  represents the dynamic slope of the anode-grid characteristic. The solution of this differential equation can be done by the method of a small parameter (Ref 9). For this purpose, a notation defined by Eqs (3) and (4) is introduced and the integration variable is defined by Eq (5). Eq (1) can, therefore, be written as Eq (6) and its solution is in the form of Eq (7). The zero approximation of the solution is given by Eq (9) (where  $M$  is an arbitrary constant), while the first approximation is expressed by Eq (11). The second approximation can be found from Eq (15). From the above analysis it is concluded that in order to reduce the error in the above method of phase measurement, the investigated quadrupole should not change the form of the oscillations;

Card 2/3

SOV/109--4-3-27/38

Evaluation of the Accuracy of the Indirect Method of Phase  
Measurement

in particular, the quadripole should not be in the form of a resonant circuit. Secondly, the signal of the oscillator should be the same in the presence as in the absence of the investigated network. Thirdly, if the measured network contains any non-linearities, the measurement should be carried out at the smallest possible signal voltage.

Card 3/3 There are 9 references, 3 of which are Soviet, 5 English and 1 German.

SUBMITTED: July 10, 1958

87359

S/120/60/000/004/006/000  
E073/E435

9.6000 (3702, 1613, 1249)

AUTHOR: Dvinskikh, V.A.

TITLE: Noise-Immune Bridge Measuring Circuits

PERIODICAL: Priory i tekhnika eksperimenta, 1960, No.4, pp.87-88

TEXT: The author recommends using bridge circuits in which the measuring equipment is characterized by a certain reduction coefficient  $\beta$  (ratio of the output to the input voltage). A narrow-band amplifier is chosen whose maximum gain  $K > 1/\beta$  corresponds to signals of a frequency  $\omega$ . In this case, if the sum of the phases equals zero, undamped oscillations will occur in the noninteracting closed loop: measuring part-additional amplifier. During further balancing, while decreasing  $\beta$ , a sudden cessation of the oscillations will take place which can be easily recorded by means of an indicator which is switched-in to the output of the amplifier. A bridge circuit (see the figure) based on this method contains an amplifier tuned to a frequency  $\omega_0$ , a balanced transformer which permits using the bridge in the case of measuring nonsymmetric loads and a calibrated phase shifter. For measuring the frequency and amplitude of the oscillations, a wavemeter and a level-indicator are used. The amplifier, the

Card 1/5

87359

S/120/60/000/004/008/028  
E073/E435

# Noise-Immune Bridge Measuring Circuits

transformer, the bridge and the phase shifter form a noninteracting closed system in which undamped oscillations occur if the following conditions are fulfilled:

$$\text{Eq. (1)} \quad \left| \frac{U_{ab}}{U_{cd}} \right| < |K_{yc}(j\omega) K_{Tp}(j\omega) K_{K\Phi}(j\omega)| \quad (1)$$

$$\text{Eq. (2)} \quad \Sigma\phi = \phi_{yc} + \phi_{Tp} + \phi_M + \phi_{K\Phi} = 0, \quad (2)$$

where  $K_{yc}$ ,  $K_{Tp}$ ,  $K_{K\Phi}$  are the transfer coefficients of the elements of the system and  $\phi_{yc}$ ,  $\phi_{Tp}$ ,  $\phi_{K\Phi}$ ,  $\phi_M$  are the phase shifts in these. Assuming that all elements of the system are linear, Eq.(1) for the case of steady-state oscillations of the amplitude  $A_1$  and the frequency  $\omega$  can be written as

$$\text{Eq. (3)} \quad \left| \frac{U_{ab}}{U_{cd}} \right| = |K_{yc, cp}(j\omega)| |K_{Tp}(j\omega) K_{K\Phi}(j\omega)|, \quad (3)$$

Card 2/5

87369  
S/120/60/000/004/008/028  
E073/E435

# Noise-Immune Bridge Measuring Circuits

where  $|K_{yc, \omega p}(j\omega)|$  is the modulus and the average complex gain of the amplifier for signals of the amplitude  $A_1$  and the frequency  $\omega$ . Change in the value of  $\phi_{\Phi}$  by the phase shifter ensures obtaining steady-state oscillations of the frequency  $\omega_0$ . From Eq.(2) and (3)  $|U_{ab}/U_{cd}|$  and  $\phi_M$  are calculated. In view of the non-linearity of the amplifier, the phase is measured with an error (Ref.3) which decreases with decreasing oscillation amplitude. In the case of reactances, this circuit enables independent balancing for the modulus and the phase. For the measurement of pure resistances, the phase-shifter and the wavemeter can be dispensed with. The sensitivity of the measuring circuit in the case of using a multistage resonance amplifier can be such that a deviation from the balanced state corresponding to  $10^{-6}$  to  $10^{-8}$  absolute value of the measured resistance can be detected. In relative measurements, for instance for detecting slight changes in any element of the circuit, the sensitivity can be increased by a factor of 10 to 20, if the system is made to operate in the neighbourhood of the quench boundary of the oscillations. However,

Card 3/5

87369

S/120/60/000/004/008/028

E073/E435

# Noise-Immune Bridge Measuring Circuits

in this case rigid requirements have to be met relating to the stability of all the elements of the circuit, in the first instance, the gain of the amplifier. On the basis of the circuit for measuring pure resistances, a bridge with automatic balancing can easily be realized if the level indicator is substituted by a high-sensitivity relay. Experiments on a bridge circuit with an amplifier tuned to 1000 cps and having a gain of 490 have shown that deviations from the balanced state not exceeding 0.3% can be detected. There are 1 figure and 3 Soviet references.

(Note: This is a condensed translation.)

SUBMITTED: June 7, 1959

Card 4/5



87369

S/120/60/000/004/002/028  
E073/E435

Noise-Immune Bridge Measuring Circuits

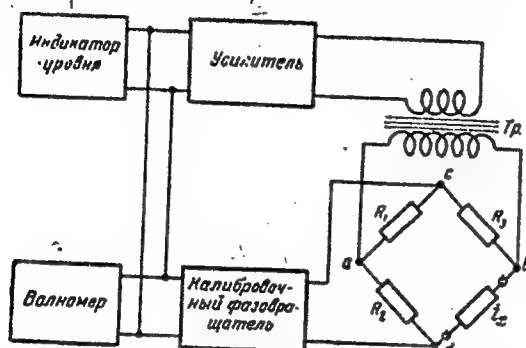


Fig.

- 1 - level indicator;
- 2 - amplifier;
- 3 - wavemeter;
- 4 - calibration phase shifter

тему, в которой возникают незатухающие колебания при выполнении условий:

Card 5/5

DVINSKIKH, V.A.

Circuits for sorting parts of electric circuits. Izv.tekh. no.10;  
42-45 0'60. (MIRA 13:10)  
(Electric circuits--Testing)

DVINSKIKH, Vasilii Aleksandrovich; KUZ'MINOV, A.I., red.; SHIROKOVA,  
M.M., tekhn. red.

[Measuring networks with self-excitation] Izmeritel'nye skhe-  
my s samovozbuzhdeniem. Moskva, Gosenergoizdat, 1962. 47 p.

(MIRA 15:10)

(Electric networks) (Electric measurements)

19991

S/109/62/007/004/017/018  
D230/D302

9.2571

9.4230

AUTHOR: Dvinskikh, V.A.

TITLE: On the possibility of measuring small reflections in self-excited systems

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 4, 1962,  
716 - 720

TEXT: This is a description of simple broadband apparatus for measuring small reflection coefficients; the operation is based on the property of self-excitation of the system. An amplifier with negative feedback, a directional coupler, attenuator and a band-pass filter form a generator circuit. Oscillations in this generator take place when the amplitude of reflections from the element under test exceeds a fixed level. The instrument is capable of broadband v.s.w.r. indication within limits 1.05 to 1.2 with an error not less than  $\pm 10\%$ ; the lower limit can be reduced to v.s.w.r. = 1.02 by using precision directional couplers. In the second arrangement proposed the band-pass filter is replaced by a narrow-band cavity with a modulator and a monitoring oscilloscope. In this, selected  
Card 1/3

On the possibility of measuring ...

S/109/62/007/004/017/013  
D230/D302

parts of the region are investigated for which the reflection coefficient exceeds a fixed value. A similar band-pass measuring device can be designed using ferrite resonators. In the third method, improved indication of the resonant frequency coincidence is obtained by using phase modulation; this is achieved by appropriately modulating a travelling-wave amplifier. At a frequency equal to the resonant frequency of the cavity the output signal will contain only the second harmonic of the modulator frequency to which the amplifier is tuned; this system requires considerably stability of operating conditions. In practical cases, there exist usually a number of reflections from various points in the circuit. The discrete reflection points are found by controlling the feedback and by varying the excitation of the single-frequency oscillation corresponding to the point of reflection and maximum v.s.w.r. The discussion includes a critical examination of the performance of the constituent components and limiting conditions affecting the reading accuracy of the apparatus described. There are 3 figures and 7 references: 5 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: I.C. Dix, M. Sherry, A microwave reflectometer display system for 7500 to 1100 mc/s, Elec-Card 2/3

On the possibility of measuring ...

S/109/62/007/004/017/018  
D230/D302

tronic Engng, 1950, 31, 371, 24; W.R. Beam, D.I. Blattner, Phase  
angle distortion in travelling wave tubes, R.C.A. Rev., 1956, 17, 1  
86.

SUBMITTED: August 7, 1961

Card 3/3

DVINSKIKH, V.A.

Plotting meters of four-pole transmission factors with  
a digital reading. Priborostroenie no.12:4-5 D'63.

(MIRA 17:5)

S/109/63/008/002/024/023  
D413/D508

AUTHOR: Dvinskikh, V.A.

TITLE: On the possibility of estimating the noise of a microwave amplifier in a self-oscillatory circuit

PERIODICAL: Radiotekhnika i elektronika, v. 8, no. 2, 1963, 344-346

TEXT: The author describes a method for evaluating microwave amplifier noise by applying suitable overall positive feedback to induce self-oscillation; the output signal, consisting of sine-wave plus noise, passes through a mixer and bandpass amplifier, and the noise power level is measured with a square-law detector device, then being compared with the level when further noise is injected into the amplifier input. The errors of this method are discussed in the light of I.L. Bershteyn's statistical theory (Izv. AN SSSR, fiz., v. 14, no. 2, 1950, 145), and the choice of parameters is considered. Comparative measurements of noise factor of low-noise decimetric TWTs by this method and by using a superhet receiver have given Card 1/2



S/109/63/008/002/024/023  
D413/D308

On the possibility ...

en results differing by not more than 1.5 dB; in this work the resonator in the positive feedback loop had a Q of the order of 100, and the center-frequency of the bandpass amplifier was 40 mc/s. There are 3 figures.

SUBMITTED: February 8, 1962

Card 2/2

DVINSKIKH Vasilii Aleksandrovich; MIRSKIY, G.Ya., retsenzent;  
SREBENSKIY, V.M., retsenzent; GOLOVANOVA, L.V., red.

[Measurement of the parameters of amplifiers using a self-excitation mode] Izmereniye parametrov usilitelei s primeneniem rezhima samvozbuzhdeniya. Moskva, Sovetskoe radio, 1965. 231 p. (MIRA 18:3)

DVINSKIKH, V.A., kand. fiziko-matem. nauk

Measuring capacitances of capacitor pickups in a self-excited  
bridge circuit. Priborostroenie no.5:3-5 My '65.

(MIRA 18:5)

L 3018-66 EWT(d)/EWT(1)/EEG(k)-2/EWA(h)

AM5013194

BOOK EXPLOITATION

UR/

621.375:621.317.6

18

10

8+1

Dvinskikh, Vasilii Aleksandrovich

Use of self-oscillation methods in <sup>qm</sup>measuring amplifier parameters (Izmereniye parametrov usiliteley s primeneniym rezhima samovozbuzhdeniya) Moscow, Izd-vo "Sovetskoye radio" 1965. 231 p. illus., biblio. 7500 copies printed.

TOPIC TAGS: self oscillation, measuring measurement, <sup>25</sup>amplifier parameter measurement, gain measurement, phase shift measurement, characteristic measurement, noise factor measurement, auxiliary feedback, quasi linear amplifier, power output measurement, nonlinearity measurements

PURPOSE AND COVERAGE: This book is intended for engineers and technicians concerned with testing vacuum-tube and semiconductor amplifying elements. It may also be useful for radio specialists working in this field and for students taking courses in related fields at schools of higher technical education. Methods of measuring basic amplifier parameters, such as gain, power output, noise factor, harmonic distortion factor, and input-output amplitude characteristics are discussed. It is shown that in a majority of practical cases (including automatic control), these parameters can be measured by converting the

Card 1/5

L 3018-66  
AM5013194

8

amplifier being tested into a state of self-excitation by means of an auxiliary-feedback circuit. Methods used in the noise factor measurement of quasi-linear amplifiers operating in a self-excitation state and acting as the superheterodyne of a superheterodyne receiver are also described. The author thanks G. Ya. Mirskiy, V. N. Sretenskiy, R. A. Valitov, N. S. Iofin, S. V. Kukarin, A. S. Koshelov, I. M. Kulik and Z. E. Dvinskikh for their work in preparation of the book.

TABLE OF CONTENTS:

Foreword -- 3

Introduction -- 4

Ch. I. Measurement of power output of quasi-linear amplifiers -- 13

1. Representation of the power output of quasi-linear amplifiers and its measurement in a generator circuit -- 13
2. General considerations of the measuring system of the power output of a quasi-linear amplifier in a state of self-excitation -- 21
3. Measurement of the power output of lf amplifiers -- 23

Card 2/5

L 3018-66

AM5013194

4. Measurement of power output of hf amplifiers -- 31
5. Measurement of power output in uhf amplifiers -- 37
6. Automation of power output control of quasi-linear amplifiers -- 55

Ch. II. Measurement of the gain of quasi-linear amplifiers -- 60

1. Representation of the gain of quasi-linear amplifiers and its measurement in a generator circuit -- 60
2. General consideration on building a system of gain measurement of quasi-linear amplifiers with the use of a state of self-excitation regime -- 81
3. Measurement of the gain of lf amplifiers -- 90
4. Measurement of the gain of hf amplifiers -- 109
5. Measurement of the gain of vhf amplifiers -- 117
6. Automation of gain control of quasi-linear amplifiers -- 123

Ch. III. Measurement of the phase shift between the input and output signals of quasi-linear amplifiers -- 132

1. Representation of the gain of quasi-linear amplifiers and its measurements in a generator circuit -- 132
2. General considerations of the phase measurement of the gain with the use of a self-excitation regime -- 147

Card 3/5

L 3018-66

AM5013194

3. Measurement of the gain phase in lf amplifiers -- 149
4. Measurement of the gain phase in hf amplifiers -- 153
5. Measurement of the gain phase in vhf amplifiers -- 158

Ch. IV. Measurement of nonlinearity of quasi-linear amplifiers -- 177

1. Connection between various evaluation criteria of amplifier non-linearity -- 177
2. Measurement of the amplitude characteristic of quasi-linear amplifiers -- 184
3. Determination of the harmonic distortion factor -- 186

Ch. V. Measurement of the noise factor of quasi-linear amplifiers -- 189

1. Representation of the amplifier noise factor and its measurement in a circuit with a superheterodyne receiver -- 189
2. General considerations of a system for measuring the amplifier noise factor with the amplifier converted to a state of self-excitation -- 206
3. Measurement of the noise factor in hf amplifiers -- 211
4. Measurement of the noise factor in vhf amplifiers -- 215

L 3018-66

AM5013194

5. Automation of noise factor control of quasi-linear amplifiers -- 224

Bibliography -- 226

SUB CODE: EC

SUBMITTED: 21Jan65

NO REF SOV: 069

OTHER: 016

Card 5/5 *nd*



DVINSKIY, En.

Secret of the winding machine designed by Egorov. Izobr.i rats.  
no.2:58-59 F '60. (MIRA 13:8)  
(Winding machines)

1. DVINSKIY, Ye.
  2. USSR (600)
  4. Coal-Mining Machinery
  7. Soviet mining technology. Znan. sila, no. 10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

USSR/Human and Animal Physiology. Digestion. The Stomach.

T-7

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55712.

Author : Dvinyakov, L.I.

Inst : Institute of Physiology. Academy of Sciences USSR.

Title : Secretion Characteristics of the Lesser and Greater  
Stomach Curvatures in Imaginary Feedings of Dogs  
After Esophagotomy.

Orig Pub: Tr. In-ta fiziol. AN SSR, 1957, 6, 498-508.

Abstract: After esophagotomy has been performed on dogs with stomach fistula and with ventricles severed from the lesser and greater curvatures, an imaginary feeding (IF) of bread, meat, or milk effected a secretion of acid gastric juice from only the lesser curvature ventricle. The greater curvature

Card : 1/2

USSR/Human and Animal Physiology. Digestion. The Stomach.

T-7

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55712.

ventricle secreted mucus only, without HCl being liberated. In imaginary feedings of dogs who were kept on a meat or carbohydrate and milk diet, the lesser curvature secretion and acidity were larger than in dogs who were kept on a mixed diet. After IF the latent secretion period of the lesser curvature did not change, but the latent secretion period of the greater curvature increased. In some cases of dogs with ventricles severed from the lesser curvature and from the pyloric section, IF did not effect secretion, not even the secretion of the lesser curvature. After IF with meat, carbolic cholin (0.25 mg injected into the stomach) increased secretion, acidity, and the digestive capacities of gastric juice in all dogs. After IF, secretion

Card : 2/3

Administrative approval for interview, subject  
should be obtained. Following interview and  
analysis, the subject should be classified as  
either "A" or "B".

The subject should be classified as "A" if  
the subject is a member of the Communist Party  
of the United States or if the subject is a  
member of the Communist Party of the United  
States of America. The subject should be  
classified as "B" if the subject is a member  
of the Communist Party of the United States  
of America or if the subject is a member of  
the Communist Party of the United States of  
America. The subject should be classified as  
"C" if the subject is a member of the  
Communist Party of the United States of  
America or if the subject is a member of  
the Communist Party of the United States of  
America. The subject should be classified as  
"D" if the subject is a member of the  
Communist Party of the United States of  
America or if the subject is a member of  
the Communist Party of the United States of  
America.

AUTHORS: Alekseyev, N.F., Yakobson, L.G., Dvinyanina, N.P., 32-3-12/52  
Lavrent'yeva, N.N.

TITLE: The Accelerated Analysis of Mixtures Containing Ammonia and  
Methylamine (Uskorennyy analiz smesey, soderzhashchikh ammiak  
i metilaminy)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 3, pp. 263-267 (USSR)

ABSTRACT: A method of determination was worked out which was developed from  
three different methods. One of them is the chromatographic  
analysis according to Fuks and Rappoport [Ref. 3]. From a hydro-  
chloric acid solution three samples are taken. In the first  
sample dimethylamine is determined polarographically or by hydrazine-  
method. In the second sample the hydrochlorides of ammonia and  
monomethylamine are treated with butanol and chloroform. The third  
sample serves for the chromatographic determination of trimethyl-  
amine. Should the solution contain less than 0.25 g/l ammonia,  
determination of ammonium chloride cannot be carried out with  
butanol but, according to Leon [Ref. 2], by a precipitation with

Card 1/2

The Accelerated Analysis of Mixtures Containing  
Ammonia and Methylamine

32-3-12/52

sodium cobaltinitrite. The extraction of trimethylamine in chromatographic determination is carried out, instead of with butanol, with benzene according to Gerber and Hildi [Ref. 97], as in this way a better separation is attained. Chromatographic determination was carried out in a mixture of starch and calcium oxide with bromothymol blue. Titration is carried out with a 0.02-0.05n sulphuric acid solution. The accuracy attained satisfied the demands made by industry and analysis is said to take three hours. There are 2 tables, and 9 references, 5 of which are Slavic.

ASSOCIATION: Kemerovo Nitrogen Fertilizers Plant (Kemerovskiy azotno-tukovyy zavod)

AVAILABLE: Library of Congress

- |                                |                                   |
|--------------------------------|-----------------------------------|
| 1. Ammonium compounds-Analysis | 2. Methylamine compounds-Analysis |
| 3. Butanol-Applications        | 4. Chloroform-Applications        |

Card 2/2

DVINYANINOV, A.V.; YANKOVSKAYA, Ye.I.

Calculating the influence of relief on wind velocity in planning  
electric power transmission lines. Sbor. rab. Kuib. gidromet.  
obser. no.1:5-37 '64. (MIRA 17:12)



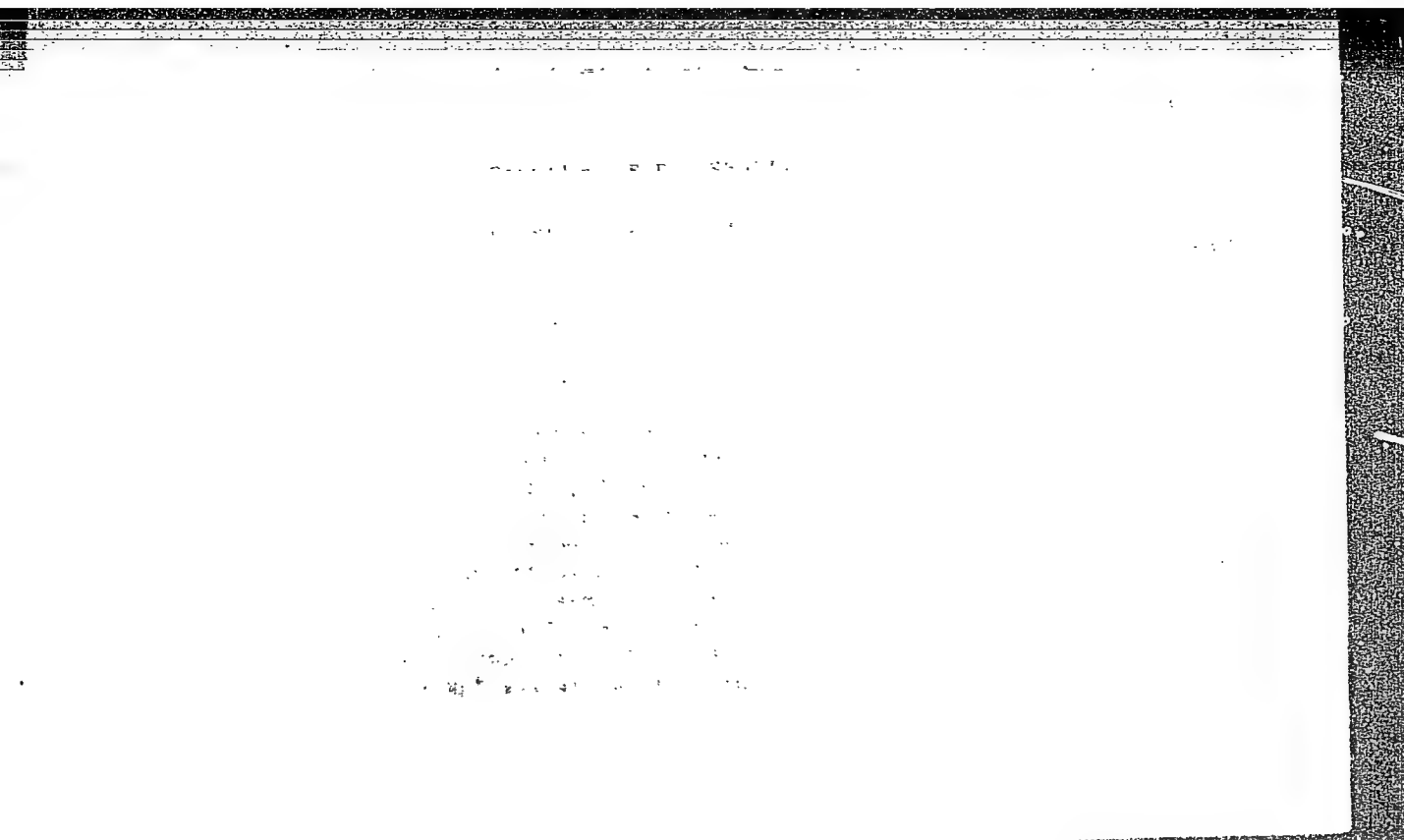
GAVRILOV, F.F.; BEZEL', V.S.; ~~DVINYANINOV, B.L.~~; KNYAZYUK, L.V.,  
inzh., retsenzent; DUGINA, N.A., tekhn. red.

[Safety measures in X-ray defectoscopy] Bezopasnost' rabo-  
ty rentgenologa pri defektoskopii. Moskva, Mashgiz, 1963.  
77 p. (Biblioteka kontrolera-mashinostroitelia, no.8)  
(MIRA 16:10)

(X rays--Safety measures)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411620014-2



APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411620014-2"

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411620014-2

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000411620014-2"

L 2723-66 EWT(1)/EPA(s)-2/EWT(m)/I/EWP(t)/EWP(b)/EWA(c) LJP(c) JD/JG/GG

ACCESSION NR: AP5017194

UR/0139/65/000/003/0175/0175

AUTHORS: Shul'gin, B. V.; Gavrilov, F. F.; Dvinyaninov, B. L.

TITLE: Dielectric constant of single crystals of lithium hydride

SOURCE: IVUZ. Fizika, no. 3, 1965, 175

TOPIC TAGS: lithium compound, dielectric constant, crystal lattice structure, crystal lattice vibration

ABSTRACT: To determine the wavelength of the natural oscillations of the LiH lattice, the authors measured the dielectric constant of transparent crystals with average dimensions 8 x 4 x 1 mm. Under the influence of light, the crystals soon assumed a blue color. The dielectric constant was measured with a capacity meter at 500 kcs and 23°C. The value of the dielectric constant was found to be  $10.5 \pm 0.26$ . The accuracy of the method was checked by determining the electric constant of Zn, Sn, and LiF which agreed with the published data. The wavelength obtained for the natural vibrations of the LiH lattice is

Card 1/2

L 2723-66

ACCESSION NR: AP5017194

3

$\lambda = 56.5 \times 10^{-4}$  cm. Orig. art. has: 1 table.

ASSOCIATION: Ural'ski politekhnicheskii institut imeni S. M. Kirova  
(Ural Polytechnic Institute) 44.85

SUBMITTED: 11Jul64

ENCL: 00

SUB CODE: SS, EM

NR REF SOV: 004

OTHER: 002

Card

2/2

L 15565-66 EWT(1)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACC NR: AP6004407

SOURCE CODE: UR/0051/66/020/001/0074/0077

AUTHOR: Dvinyaninov, B. L.; Gavrilov, F. F.

ORG: none

TITLE: <sup>21, 44, 55</sup> Color centers in lithium hydride

SOURCE: <sup>21</sup> Optika i spektroskopiya, v. 20, no. 1, 1966, 74-77

TOPIC TAGS: absorption spectrum, single crystal, lithium compound, ionic hydride, color center, alkali halide

ABSTRACT: The optical absorption spectra of lithium hydride are studied as a function of time of exposure to light. Single crystals were grown by slowly cooling a melt of hydrated lithium. Unfiltered light from a mercury tube was used for preliminary exposure of the crystals. All crystals showed a strong absorption band in the 2400 Å region. This band is probably due to F-centers. This is the only absorption band observed in pure undyed crystals of lithium hydride. As exposure time is increased, a new maximum in the absorption spectrum is observed in the 3600 Å region. The F-band is also somewhat broadened. The crystals take on a smoked color which is

Card 1/2

UDC: 535.34:548.0

L 15565-66

ACC NR: AP6004407

gradually intensified to complete opacity. The absorption spectrum for these crystals stretches throughout the entire visible region. The most intense coloring is observed in the surface layer when the crystals are exposed from one side. This is probably due to absorption of the light in the crystal. Bands were also observed with absorption maxima at 5400, 7000 and 95000 Å. A qualitative analysis of these spectra shows that the bands are due to the formation of color centers as in alkali halide crystals. These bands are most clearly observed in crystals contaminated by metal impurities, but they are also seen in pure crystals. Theoretical calculations are compared with experimental data for the wavelengths at various color centers. The results show that color centers in lithium hydride have spectral characteristics similar to those in alkali halide crystals. In conclusion the authors are grateful to L. A. Mal'tsev who assisted in making some of the measurements. Orig. art. has: 4 figures, 1 table.

SUB CODE: 20/ SUBM DATE: 28Jul64/ ORIG REF: 000/ OTH REF: 008

CC

Card 2/2

ACC NR: AT7001714

SOURCE CODE: UR/2694/65/000/143/0059/0061

AUTHOR: Shul'gin, B. V.; Gavrilov, F. F.; Dvinyaninov, B. L.

ORG: none

TITLE: Concerning F-centers in LiF crystals

SOURCE: Sverdlovsk. Ural'skiy politekhnicheskii institut. Trudy, no. 143, 1965.  
Atomnaya i molekulyarnaya fizika (Atomic and molecular physics), 59-61

TOPIC TAGS: lithium fluoride, color center, absorption spectrum, hyperfine structure, epr spectrum, ionization spectrum

ABSTRACT: The purpose of the investigation was to estimate theoretically what changes in the widths of the hyperfine splitting lines can be expected in the case when the F-centers in LiF crystals are in a state where they form weak associations, rather than being in a state of isolated defects. The analysis is based on comparison of experimental results on the EPR absorption spectrum of the F-centers in LiF crystals, produced by ionizing radiation, and similar results obtained for KCl. From a plot of the F-center exchange-interaction frequency against the distance between F-centers it is deduced that narrowing down of the hyperfine interaction lines in the EPR spectra of LiF crystals should be observed at distances on the order of four lattice constants between F-centers. This corresponds to an F-center concentration  $\sim 10^{21} \text{ cm}^{-3}$ , which agrees with experimental data. The estimated change in the line width is by a factor approximately 1.28. This means that if the width of the hyperfine inter-

Card 1/2



ACC NR: AT7001714

action in LiF state is 14 gauss, as published in the literature, then in the initial state it should be 18 gauss. Appropriate experiments are needed to confirm this value. Orig. art. has: 1 figure and 6 formulas.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 001/ OTH REF: 007

Card 2/2

ACC NR: AT7001715

SOURCE CODE: UR/2694/65/000/143/0067/0070

AUTHOR: Leshchenko, Yu. I.; Kirsanov, V. V.; Dvinyaninov, B. L.

ORG: none

TITLE: Operation of the EG-2.5 in a mode in which proton and deuteron beams are used simultaneously

SOURCE: Sverdlovsk. Ural'skiy politekhnicheskii institut. Trudy, no. 143, 1965. Atomnaya i molekulyarnaya fizika (Atomic and molecular physics), 67-70

TOPIC TAGS: electrostatic accelerator, proton beam, deuteron beam, neutron reaction/EG-2.5 electrostatic accelerator

ABSTRACT: The authors report tests performed in 1960-1963 on the electrostatic accelerator EG-2.5 of the Electrophysics Laboratory of the Ural Polytechnic Institute, using a proton beam and a beam of deuterons with energy up to 1.5 Mev. The beams were used both separately and simultaneously. The desired end result was to obtain two beams that are close in magnitude and of sufficient intensity. This was done by filling the source with a mixture of hydrogen and deuterium. The deuteron beam was obtained by using the reaction  $\text{Be}^9(d, n)\text{B}^{10}$ . In the case when both beams were simultaneously used, one beam was deflected by a magnetic analyzer through  $90^\circ$ , and the second was deflected  $45^\circ$ . To determine the feasibility of using both beams simultaneously, the compositions of the ion beam were investigated when the ion source was fed with hydrogen, deuterium, or a mixture of the two. When the source was fed with

Card 1/2

ACC NR: AT7001715

hydrogen, the resultant  $H_2^+$  beam could be used to stabilize the voltage of the generator. When the source was fed with deuterium, the deuteron beam was fed to the target at  $45^\circ$ , and a small beam of protons went to the ion channel (10% of the total ion current). When the source operated with the mixture, the proton beam in the ion channel was 40% of the total ion beam. At the same time, the target received at an angle of  $45^\circ$  a beam of  $H_2^+$  and  $D_1^+$ , the latter ranging from 40 - 60% of the total. The generator voltage could be stabilized with either of the two latter beams. Prolonged operation of the EG-2.5 as a neutron generator with simultaneous use of the proton beam demonstrated the advisability of feeding the generator source with a mixture of hydrogen and deuterium. Orig. art. has: 2 figures and 3 formulas.

SUB CODE: 18, 20/ SUBM DATE: 00/ ORIG REF: 001

Card 2/2

ACC NR: AP7004981

SOURCE CODE: UR/0048/66/030/009/1487/1489

AUTHOR: Dvinyaninov, B.L.; Gavrilov, F.F.

ORG: none

TITLE: Dynamics of the formation of some color centers in lithium hydride /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no.9, 1966, 1487-1489

TOPIC TAGS: lithium compound, hydride, absorption spectrum, single crystal, color center

ABSTRACT: The authors have recorded absorption spectra of LiH crystals grown slowly from the melt and have investigated the effects on the absorption of ultraviolet irradiation and changes in the conditions under which the crystals were grown. All the crystals were transparent in the visible and had a very strong absorption band in the 220-260 mμ region. Rapid cooling during crystal growth or the presence of an excess of lithium in the melt resulted in a broadening of this band. Irradiation with low intensity 253 mμ radiation resulted first in a partial bleaching of this band and splitting of the band into two bands. After further irradiation the absorption again increased and the two component bands merged. These results are regarded as favoring the hypothesis that this band is due to absorption by F centers

Card 1/2

ACC NR: AP7004981

rather than to exciton absorption. Ultraviolet irradiation gave rise also to other absorption bands in the LiH crystals. The crystals that contained an excess of lithium or that were cooled rapidly during growth behaved similarly to LiH:Mg crystals. The growth under ultra violet irradiation of the 655 mμ absorption band due to colloidal lithium was different, depending on whether a given ultraviolet dose was received over a long time interval from a weak source, or was delivered rapidly from a strong source; the peak of the absorption band occurred at a shorter wavelength when the ultraviolet dose was received rapidly than when it was received slowly. From this it is concluded that the formation of colloidal lithium in LiH crystals involves a stage in which color centers are produced. Orig. art. has: 2 figures.

SUB CODE: 20

SUBM DATE: none

ORIG. REF: 002

OTH REF: 005

Card 2/2

ACC NR: AP7007711

SOURCE CODE: UR/0139/67/000/001/0069/0073

AUTHOR: Shul'gin, B. V.; Gavrilov, F. F.; Dvinyaninov, B. L.;  
Koryakov, V. I.; Chirkov, A. K.

ORG: Ural Polytechnic Institute imeni S. M. Kirov (Ural'skiy politekhnicheskii institut)

TITLE: Paramagnetic resonance of irradiated lithium hydride luminescent crystals

SOURCE: IVUZ. Fizika, no. 1, 1967, 69-73

TOPIC TAGS: luminescent crystal, activated crystal, absorption line, electron paramagnetic resonance, *lithium compound, hydride, temperature dependence, color center*

ABSTRACT: The dependence of the intensity and width of the absorption line of the EPR on temperature was investigated in irradiated lithium hydride luminescent crystals. The irradiation was done at room temperature with the unfiltered light of an SVD-120 mercury lamp and betatron electrons with energies of 8 to 10 Mev. The temperature dependence of the intensity and width of the EPR absorption line of LiH crystals with blue luminescence undergoes a sharp change in the temperature range from 90 to 120°C. The first maximum on the thermoluminescence curve is also observed in this range. This coincidence

Card 1/2

ACC NR: AP7007711

occurs because the centers of the electron capture in LiH responsible for the first thermoluminescence peak are bound with the colloidal lithium. The release of electrons from the capture level corresponding to the first thermoluminescence peak causes the elimination of these absorption centers. As a result, the intensity of the paramagnetic absorption line decreases and the width increases due to the absorption by the color centers. The authors thank M. Lemberberg who participated in the investigation of the optical absorption spectra of LiH. Orig. art. has: 3 figures. [JA] [WA-95]

SUB CODE: 20/ SUBM DATE: 03Aug67 OTH REF: 003

Card 2/2

*DVINYANINOV, L.I.*

DVINYANINOV, L.I.

Analysis of neural regulation of gastric secretory areas. Trudy  
Inst. fiziol. 3:86-104 '54. (MLRA 8:2)

1. Laboratoriya fiziologii i patologii pishchevareniya i krovoobra-  
shchaniya. Zaveduyushchiy A.V.Solov'yev.

(GASTRIC JUICE,

secretion, neural regulation)

(AUTONOMIC NERVOUS SYSTEM, physiology,

regulation of gastric secretion)



DVINYANINOV, L.I.

Role of the nervous system in secretory function of the stomach  
following prolonged feeding with one type of food. Trudy Inst.  
fiziol. 3:105-126 '54. (MLRA 8:2)

1. Laboratoriya fiziologii i patologii pishchevareniya i krovoobra-  
shcheniya. Zaveduyushchiy A.V.Solov'yev.

(GASTRIC JUICE,

secretion, vagus regulation)

(NERVES, VAGUS, physiology,

regulation of gastric secretion)

USSR/Human and Animal Physiology. Thermoregulation.

T

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93052.

Author : Dvinyaninov, L.I.

Inst :

Title : Development of Fever Reaction in Birds (Comparative Pathology of Fever).

Orig Pub: V sb.: Fiziol. mekhanizmy lihoradocan. reaktiv, L.,  
Medgiz, 1957, 75-89.

Abstract: The consumption of oxygen (CO) in hens prior to infection by a culture of *Pasteurella avium* was constant. Changes in the body temperature (BT) and CO after infection developed in 3 stages. In the first stage (duration 7 - 10½ hours) BT did not change, but CO was somewhat lowered in some of the hens, and in others it increased; in the second

Card : 1/3

USSR/Human and Animal Physiology. Thermoregulation.

T

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93052.

stage (2 - 10½ hours) BT increased in all the hens (0.5 - 1.1%), and CO diminished (18%); in the third stage (1 - 6 hours) BT was lowered, and CO fell (40%), and the hens died. In other experiments hens were infected with an infection of a pneumococcus culture. Development of a fever reaction, sometimes delayed, was noted. An elevation of BT more often correlated with a lowering of CO. Consequently, both with infection by a definitely pathological culture and also after introduction of a weakly virulent culture, a transitory elevation of the body temperature was observed, and simultaneously, in most of the cases, a lowering of CO. In experiments in infected hens as well as in hens which were running

Card : 2/3

USSR/Mammal and Animal Physiology. Thermoregulation.

2

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93052.

temperatures, CO was significantly increased ( $1\frac{1}{2}$  - 2 times) after introduction of  $\alpha$ -dinitrophenol. This increase was maintained for 4 - 6 hours and then fell, although BT still remained high or even continued to increase. --- F.I. Murladze.

Card : 3/3

DVINYANINOV, L.I.

Features of secretion of the lesser and greater curvature of the stomach during simulated feeding of esophagostomized dogs. Trudy Inst. fiziol. 6:498-508 '57. (MIRA 11:4)

1. Laboratoriya fiziologii i patologii pishchevareniya i krovoobrashcheniya (zaveduyushchiy A.V. Solov'yev).  
(STOMACH--SECRETIONS)

DVINYANINOV, L.I.

Secretory characteristics of the lesser and greater curvature;  
in experimental gastritis produced by repeated irrigations of the  
stomach with hot water. Trudy Inst. fiziol. 7:422-430 '58 (Mira 12:3)

1. Laboratoriya fiziologii pishchevareniya (zav. - A.V. Solov'yev)  
Instituta fiziologii im. I.P. Pavlova AN SSSR.  
(STOMACH--SECRECTIONS)

DVINYANINOV, L.I.

Influence of experimental peptic ulcer caused by ataphan on the secretion of the lesser and greater curvature of the stomach.  
Trudy Inst. fiziol. 9:213-219 '60. (MIRA 14:3)

1. Laboratoriya fiziologii pishchevareniya (zaveduyushchiy - A.V. Solov'yev) Instituta fiziologii im. I.P.Pavlova.  
(CINCHOPHEN—PHYSIOLOGICAL EFFECT)  
(PEPTIC ULCER) (STOMACH—SECRECTIONS)

DVINYANINOV, L.I.

Peculiarities in the secretion of the lesser and greater curvature  
of the stomach in response to histamine and carbocholine under  
normal conditions and in experimental gastritis. Trudy Inst. fiziol.  
9:220-226 '60. (MIRA 14:3)

1. Laboratoriya fiziologii pishchevareniya (zaveduyushchiy - A.V.  
Solov'yev) Instituta fiziologii im. I.P.Pavlova.  
(STOMACH—SECRECTIONS) (STOMACH—INFLAMMATION)  
(CHOLINE—PHYSIOLOGICAL EFFECT) (HISTAMINE)



DVINYANINOV, L.I.

Influence of histamine on gastric secretion. Trudy Inst. fiziol.  
9:467-471 '60. (MIRA 14:3)

1. Laboratoriya fiziologii pishchevareniya (zaveduyushchiy - A.V.  
Solov'yev Instituta fiziologii im. I.P. Paylova.  
(HISTAMINE) (STOMACH-SECRETIONS)

DVINYANINOV, Leonid Ivanovich; SOLOV'YEV, A.V., otv. red.; VASIL'YEVA, Z.A.,  
red. izd-va; TARASOV, G.A., red. izd-va; ZENDEL', M.Ye., tekhn. red.

[Works on the physiology and pathology of digestion carried out in  
I.P.Pavlov's laboratory; abstracts of dissertations and articles for  
the period 1888-1934] Raboty po fiziologii i patologii pishchevare-  
niia vypolnennyye v laboratorii I.P.Pavlova; referaty dissertatsii i  
statei s 1888 po 1934 gg. Moskva, Izd-vo Akad. nauk SSSR, 1961. 334 p.

(MIRA 14:11)

(DIGESTION—ABSTRACTS)

(BIBLIOGRAPHY—DIGESTION)

DVINYANINOV, M., inzhener.

Electric tools in the furniture industry. Prom.koop. no.4:21-22  
Ap '56. (MLRA 9:8)  
(Moscow--Furniture industry) (Power tools)

DVINYANNINOV, N.I.

Problem of intersection of two elliptic or circular cylinders having  
axes in the same plane. Trudy KAI 22:16-22 '49. (MIRA 10:6)  
(Geometry, Projective)